TDMS No. 96015 - 05

Test Type: CHRONIC

Route: DOSED WATER

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

CAS Number: 3252-43-5

Species/Strain: RATS/F 344 Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

F1_R2

C Number: C96015

Lock Date: 04/30/2004

Cage Range: ALL

Date Range: ALL

Reasons For Removal: ALL

Removal Date Range: ALL

Treatment Groups: Include ALL

Date Report Reqsted: 06/09/2006

Time Report Reqsted: 12:50:37 First Dose M/F: 09/05/01 / 09/05/01

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: DOSED WATER

Species/Strain: RATS/F 344

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WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

CAS Number: 3252-43-5

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Date Report Reqsted: 06/09/2006

Time Report Reqsted: 12:50:37 First Dose M/F: 09/05/01 / 09/05/01

| FISCHER 344 RATS MALE | 0 MG/L | 50 MG/L | 100 MG/L | 200 MG/L |
|--|----------|----------|----------|----------|
| Disposition Summary | | | | |
| Animals Initially in Study | 50 | 50 | 50 | 50 |
| Early Deaths | | | | |
| Moribund Sacrifice | 12 | 11 | 22 | 10 |
| Natural Death | 7 | 6 | 3 | 5 |
| Survivors | | | | |
| Terminal Sacrifice | 31 | 33 | 25 | 35 |
| Animals Examined Microscopically | 50 | 50 | 50 | 50 |
| ALIMENTARY SYSTEM | | | | |
| Esophagus | (48) | (50) | (50) | (50) |
| Epithelium, Hyperkeratosis | 6 [1.8] | 8 [1.6] | 34 [1.8] | 46 [1.9] |
| Intestine Large, Cecum | (48) | (49) | (50) | (47) |
| Inflammation, Chronic | 1 [3.0] | (1-7) | () | (/ |
| Ulcer | 11 | | 1 [3.0] | |
| Intestine Large, Colon | (48) | (50) | (49) | (47) |
| Intestine Large, Rectum | (49) | (50) | (50) | (49) |
| Intestine Small, Duodenum | (49) | (49) | (50) | (48) |
| Congestion | (/ | , | 1 [4.0] | , |
| Intestine Small, Ileum | (46) | (48) | (50) | (47) |
| Intestine Small, Jejunum | (47) | (46) | (49) | (47) |
| Liver | (50) | (50) | (50) | (50) |
| Angiectasis, Focal | 1 [2.0] | 5 [1.8] | 3 [2.0] | 3 [1.7] |
| Congestion | | 4 [2.3] | 2 [2.0] | 6 [2.5] |
| Degeneration, Cystic, Focal | 5 [1.8] | 5 [1.8] | 8 [2.3] | 4 [1.5] |
| Fibrosis, Focal | 1 [2.0] | | | |
| Hematopoietic Cell Proliferation | 1 [3.0] | 3 [1.3] | | |
| Hemorrhage | | | 1 [4.0] | |
| Hepatodiaphragmatic Nodule | 5 | 6 | 3 | 2 |
| Inflammation, Chronic | 28 [1.8] | 31 [1.8] | 29 [1.8] | 34 [1.9] |
| Necrosis | 3 [2.0] | 47 10 71 | 47.50.73 | 40 50 51 |
| Bile Duct, Hyperplasia | 45 [2.7] | 47 [2.7] | 47 [2.7] | 46 [2.5] |
| Hepatocyte, Basophilic Focus | 26 | 32 | 23 | 25 |
| Hepatocyte, Clear Cell Focus | 24 | 22 | 19 | 22 |
| Hepatocyte, Cytologic Alterations, Focal | 1 [1.0] | 5 [2.2] | 2 [2.5] | 6 [2.3] |
| Hepatocyte, Cytoplasmic Alteration, | 2 [2.5] | | | |

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: DOSED WATER

Species/Strain: RATS/F 344

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

CAS Number: 3252-43-5

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Date Report Reqsted: 06/09/2006

Time Report Reqsted: 12:50:37 First Dose M/F: 09/05/01 / 09/05/01

| FISCHER 344 RATS MALE | 0 MG/L | 50 MG/L | 100 MG/L | 200 MG/L | |
|---------------------------------------|----------|-------------------|----------|----------|--|
| Focal | | | | | |
| Hepatocyte, Eosinophilic Focus | 7 | 8 | 4 | 7 | |
| Hepatocyte, Mixed Cell Focus | 26 | 24 | 19 | 29 | |
| Hepatocyte, Necrosis | | 8 [2.0] | 7 [1.9] | 4 [1.5] | |
| Hepatocyte, Necrosis, Focal | 1 [1.0] | | | | |
| Hepatocyte, Vacuolization Cytoplasmic | 37 [2.1] | 37 [2.1] | 36 [2.4] | 29 [2.3] | |
| Serosa, Fibrosis | | 1 [2.0] | | | |
| Mesentery | (14) | (18) | (18) | (15) | |
| Accessory Spleen | 1 [2.0] | `1 ´ | ` ' | , , | |
| Fibrosis | | | 1 [2.0] | | |
| Pigmentation | | | 1 [2.0] | | |
| Fat, Necrosis, Focal | 9 [3.0] | 10 [2.9] | 12 [2.9] | 7 [3.0] | |
| Oral Mucosa | (0) | (0) | (1) | (3) | |
| Pancreas | (49) | (5 0) | (ŠÓ) | (ŠÓ) | |
| Hyperplasia, Lymphoid | 1 [2.0] | , , | ` ' | 1 [2.0] | |
| Inflammation | | 2 [2.5] | | | |
| Lipomatosis | | | | 1 [3.0] | |
| Vacuolization Cytoplasmic | | | 1 [2.0] | | |
| Acinus, Atrophy, Focal | 24 [1.8] | 37 [1.9] | 33 [1.9] | 30 [2.1] | |
| Acinus, Atrophy, Diffuse | | | | 1 [3.0] | |
| Acinus, Cytoplasmic Alteration | 1 [2.0] | | | | |
| Acinus, Hyperplasia, Focal | | 1 [2.0] | | 1 [2.0] | |
| Duct, Cyst | 24 | 21 | 24 | 16 | |
| Salivary Glands | (50) | (50) | (50) | (50) | |
| Atrophy, Focal | 1 [1.0] | , , | , , | 1 [1.0] | |
| Vacuolization Cytoplasmic | | | | 1 [3.0] | |
| Stomach, Forestomach | (50) | (49) | (50) | (50) | |
| Inflammation | , , | , , | 2 [2.5] | , , | |
| Ulcer | 1 [2.0] | 1 [1.0] | 4 [2.3] | 3 [2.7] | |
| Epithelium, Cyst | | | | 1 | |
| Epithelium, Hyperkeratosis | | | | 1 [1.0] | |
| Epithelium, Hyperplasia | 4 [2.5] | 2 [1.5] | 8 [2.4] | 7 [2.1] | |
| Stomach, Glandular | (50) | (50) | (50) | (50) | |
| Cyst | , , | , , | | `1 ´ | |
| Erosion | 5 [2.0] | 4 [1.8] | 5 [2.0] | 6 [1.7] | |
| Fibrosis | | | 1 [2.0] | 1 [2.0] | |
| Inflammation | | | | 1 [2.0] | |
| Inflammation, Focal | 1 [1.0] | | | | |
| Ulcer | 2 [1.5] | 2 [1.5] | 3 [2.0] | 3 [2.7] | |
| Epithelium, Hyperplasia | | | | 1 [1.0] | |

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Route: DOSED WATER

Species/Strain: RATS/F 344

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

CAS Number: 3252-43-5

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Date Report Reqsted: 06/09/2006

Time Report Reqsted: 12:50:37 First Dose M/F: 09/05/01 / 09/05/01

| FISCHER 344 RATS MALE | 0 MG/L | 50 MG/L | 100 MG/L | 200 MG/L | |
|--|---------------------|--------------------|---------------------|---------------------|--|
| Glands, Ectasia | 4 [1.0] | 3 [1.0] | 3 [1.0] | 10 [1.9] | |
| Glands, Hyperplasia | [۱.۵] | 0 [1.0] | 2 [1.0] | 2 [2.0] | |
| Tongue | (0) | (0) | (3) | (5) | |
| Epithelium, Hyperplasia | | | 1 [2.0] | 2 [1.0] | |
| Tooth | (1) | (0) | (0) | (0) | |
| Malformation | 1 | | | | |
| ARDIOVASCULAR SYSTEM | | | | | |
| Blood Vessel | (2) | (0) | (3) | (0) | |
| Aneurysm | 1 [4.0] | (-) | (-) | (-) | |
| Hemorrhage | 1 [4.0] | | | | |
| Inflammation, Chronic | | | 1 [4.0] | | |
| Thrombosis | (=0) | (=0) | 1 [4.0] | (50) | |
| Heart Cardiomyopathy | (50) | (50) | (50) | (50) | |
| Thrombosis | 39 [2.1] 2 [3.5] | 44 [1.7] | 38 [1.7] 3 [3.3] | 45 [2.2] 1 [3.0] | |
| NDOCRINE SYSTEM | | | | . [5.6] | |
| | (50) | (50) | (50) | (50) | |
| Adrenal Cortex Accessory Adrenal Cortical Nodule | (50) | (50) | (50) | (50) 2 [1.0] | |
| Angiectasis | 3 [1.3] | 3 [1.0] 1 [2.0] | 3 [1.0] | 2 [1.0] 3 [2.7] | |
| Cytoplasmic Alteration, Focal | 3 [1.0] | 1 [2.0] | 2 [2.0] | 3 [2.7] | |
| Hematopoietic Cell Proliferation | 1 [2.0] | | 2 [2.0] | 0 [2.0] | |
| Hyperplasia, Focal | 5 [2.0] | 7 [1.9] | 1 [2.0] | 8 [1.9] | |
| Infiltration Cellular, Mixed Cell | | 1 [2.0] | | 1 [1.0] | |
| Necrosis | | 1 [3.0] | | | |
| Vacuolization Cytoplasmic | 6 [1.8] | 3 [1.0] | 5 [2.0] | 11 [1.8] | |
| Capsule, Inflammation, Focal | 1 [1.0] | (EQ) | (40) | (40) | |
| Adrenal Medulla | (50) | (50) | (49) | (49) | |
| Hyperplasia Hyperplasia, Focal | 1 [3.0] 4 [1.5] | 9 [1.4] | 1 [4.0] 5 [1.2] | 4 [1.3] | |
| Necrosis | 4 [1.0] | 9 [1.4] 1 [3.0] | 5 [1.2] | 4 [1.3] | |
| Islets, Pancreatic | (49) | (50) | (50) | (50) | |
| Hyperplasia | 3 [2.0] | (00) | 2 [2.0] | 5 [2.0] | |
| Parathyroid Gland | (46) | (44) | (43) | (47) | |
| Hyperplasia | . , | | 2 [2.0] | 2 [2.0] | |
| Pituitary Gland | (50) | (50) | (48) | (49) | |

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Route: DOSED WATER

Species/Strain: RATS/F 344

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WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

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| FISCHER 344 RATS MALE | 0 MG/L | 50 MG/L | 100 MG/L | 200 MG/L | |
|---|--------------------|--------------|----------|----------|--|
| Angiectasis | 7 [2.3] | 8 [2.1] | 3 [2.3] | 6 [2.8] | |
| Cyst | 2 | 3 | 4 | 2 | |
| Hemorrhage | 5 [2.4] | | 2 [3.0] | 2 [3.5] | |
| Pars Distalis, Cyst | 4.54.03 | 2 | 3 | 0.14.51 | |
| Pars Distalis, Cytoplasmic Alteration, Focal | 4 [1.3] | 2 [1.5] | 3 [1.3] | 2 [1.5] | |
| Pars Distalis, Degeneration, Cystic, Focal | 1 [2.0] | | | | |
| Pars Distalis, Hyperplasia | 0.10.01 | 0.54.03 | 1 [3.0] | 1 [4.0] | |
| Pars Distalis, Hyperplasia, Focal Rathke's Cleft, Cyst | 6 [2.3] | 8 [1.9] 1 | 2 [2.0] | 5 [2.2] | |
| Thyroid Gland Cyst | (49) | (47) | (49) | (46) | |
| C-cell, Hyperplasia | 38 [1.8] | 38 [1.5] | 45 [1.7] | 44 [2.0] | |
| Follicle, Degeneration, Cystic, Focal | 1 [2.0] | 1 [1.0] | 1 [1.0] | [=.0] | |
| Follicle, Pigmentation, Focal | . [] | . [] | . [] | 1 [2.0] | |
| Follicular Cell, Hyperplasia, Focal | 5 [1.8] | 6 [1.5] | | 4 [1.3] | |
| GENERAL BODY SYSTEM | | | | | |
| Peritoneum | (2) | (6) | (0) | (2) | |
| Inflammation Mesothelium, Tunica Vaginalis, | 2 [2.0] | | | 1 [2.0] | |
| Hyperplasia | ر2.0] | | | | |
| Tissue NOS | (1) | (0) | (2) | (1) | |
| Abdominal, Fibrosis | () | (-7 | 1 [3.0] | 1 [3.0] | |
| Thoracic, Hemorrhage | 1 [4.0] | | | | |
| GENITAL SYSTEM | | | | | |
| Coagulating Gland | (1) | (0) | (1) | (0) | |
| Inflammation | 1 [2.0] | | | | |
| Epididymis | (50) | (50) | (50) | (50) | |
| Atrophy | | 1 [3.0] | | | |
| Fibrosis | | 1 [1.0] | | 4 [2 0] | |
| Granuloma Sperm Inflammation | 2 [2.5] | | 1 [2.0] | 1 [3.0] | |
| Epithelium, Vacuolization Cytoplasmic | 2 [2.5] 1 [2.0] | | ۱ [۲.۵] | 1 [3.0] | |
| Preputial Gland | (48) | (50) | (50) | (50) | |
| | (10) | (55) | (00) | (00) | |

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Route: DOSED WATER

Species/Strain: RATS/F 344

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Date Report Regsted: 06/09/2006

Time Report Reqsted: 12:50:37 First Dose M/F: 09/05/01 / 09/05/01

| FISCHER 344 RATS MALE | 0 MG/L | 50 MG/L | 100 MG/L | 200 MG/L | |
|---------------------------------------|---------------------|----------|--------------------|--------------------|--|
| Degeneration, Cystic | 1 [3.0] | | 2 [3.5] | 1 [3.0] | |
| Hyperplasia, Cystic | 1 [3.0] 1 [3.0] | 3 [2.0] | 2 [3.5] 1 [3.0] | 1 [3.0] 1 [3.0] | |
| Inflammation | 1 [3.0] 27 [1.7] | | 24 [1.8] | | |
| Prostate | (49) | 27 [1.5] | 24 [1.6] (50) | 22 [2.0] | |
| Inflammation | (4 9) | (50) | | (50) | |
| | 36 [2.1] | 29 [2.5] | 34 [2.5] | 33 [2.4] | |
| Epithelium, Hyperplasia | 7 [1.6] | 15 [1.5] | 5 [1.8] | 10 [1.7] | |
| Seminal Vesicle | (50) | (49) | (50) | (50) | |
| Atrophy, Focal | | 1 [2.0] | 4 [0 0] | | |
| Epithelium, Hyperplasia | (50) | (50) | 1 [2.0] | (50) | |
| Testes | (50) | (50) | (50) | (50) | |
| Atrophy | 14 [3.1] | 10 [3.2] | 4 [3.0] | 6 [3.2] | |
| Cyst | | 1 | | | |
| Hemorrhage | | | 1 [2.0] | 1 [3.0] | |
| Inflammation, Granulomatous | | | | 1 [3.0] | |
| Interstitial Cell, Hyperplasia, Focal | 3 [1.7] | 4 [1.5] | 7 [1.7] | 2 [2.0] | |
| HEMATOPOIETIC SYSTEM Bone Marrow | (50) | (50) | (50) | (50) | |
| Hyperplasia | 2 [3.0] | 5 [3.0] | 4 [3.0] | 6 [2.8] | |
| Hyperplasia, Histiocytic, Focal | _[] | 1 [2.0] | . [0.0] | 1 [2.0] | |
| Lymph Node | (26) | (24) | (19) | (21) | |
| Ectasia | (=3) | () | (10) | 1 [4.0] | |
| Fibrosis | | | | 1 [3.0] | |
| Bronchial, Hyperplasia, Lymphoid | | | | 1 [3.0] | |
| Deep Cervical, Hemorrhage | 1 [3.0] | 1 [3.0] | | . [5.5] | |
| Mediastinal, Ectasia | 1 [3.0] | 1 [3.0] | 3 [3.3] | 1 [3.0] | |
| Mediastinal, Hemorrhage | 4 [3.0] | 2 [3.0] | 1 [3.0] | 4 [2.8] | |
| Mediastinal, Hyperplasia, Lymphoid | . [] | 2 [3.0] | 4 [3.0] | 1 [3.0] | |
| Mediastinal, Pigmentation | | 1 [3.0] | . [0.0] | . [5.5] | |
| Pancreatic, Ectasia | | 2 [3.0] | 1 [3.0] | 2 [2.5] | |
| Pancreatic, Hemorrhage | 1 [3.0] | 3 [3.0] | 1 [4.0] | 4 [3.3] | |
| Pancreatic, Hyperplasia, Lymphoid | 1 [3.0] | 1 [3.0] | . [] | . [] | |
| Pancreatic, Pigmentation | [] | [] | 1 [3.0] | | |
| Lymph Node, Mandibular | (1) | (0) | (3) | (0) | |
| Ectasia | 1 [4.0] | (-/ | (-) | V - / | |
| Lymph Node, Mesenteric | (50) | (50) | (50) | (50) | |
| Atrophy | ζ / | (/ | (/ | 1 [3.0] | |
| Ectasia | 2 [3.5] | 2 [3.0] | 2 [3.5] | 4 [3.5] | |
| | | | | | |

a - Number of animals examined microscopically at site and number of animals with lesion

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Route: DOSED WATER

Species/Strain: RATS/F 344

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CAS Number: 3252-43-5

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Date Report Reqsted: 06/09/2006

Time Report Reqsted: 12:50:37 First Dose M/F: 09/05/01 / 09/05/01

Lab: SRI

| FISCHER 344 RATS MALE | 0 MG/L | 50 MG/L | 100 MG/L | 200 MG/L | |
|------------------------------------|----------|---------|----------------|----------|--|
| Fibrosis | 1 [3.0] | | | | |
| Hemorrhage | | 1 [2.0] | 1 [4.0] | 2 [2.5] | |
| Hyperplasia, Histiocytic | | | 1 [3.0] | 1 [4.0] | |
| Hyperplasia, Lymphoid | 2 [3.0] | 4 [3.0] | 2 [3.0] | 3 [3.0] | |
| Spleen | (49) | (50) | (50) | (50) | |
| Accessory Spleen | | 1 | 2 [3.0] | | |
| Congestion | 1 [3.0] | | 2 [2.5] | | |
| Fibrosis, Focal | 3 [2.7] | | 3 [2.3] | 1 [3.0] | |
| Hematopoietic Cell Proliferation | 2 [3.0] | 4 [3.0] | 2 [3.0] | 3 [2.7] | |
| Hemorrhage | | | 1 [3.0] | 1 [4.0] | |
| Hyperplasia, Histiocytic, Focal | | 1 [4.0] | 1 [4.0] | 1 [4.0] | |
| Hyperplasia, Lymphoid | | 1 [2.0] | | | |
| Infiltration Cellular, Mixed Cell | | | 1 [3.0] | | |
| Necrosis, Focal | 1 [4.0] | | 2 [4.0] | | |
| Pigmentation | | | 1 [3.0] | | |
| Lymphoid Follicle, Atrophy | | | 1 [3.0] | 1 [3.0] | |
| Red Pulp, Depletion Cellular | 1 [3.0] | | | | |
| Thymus | (43) | (50) | (44) | (45) | |
| Atrophy | 1 [3.0] | | | | |
| Ectopic Parathyroid Gland | | 1 [3.0] | | | |
| Hemorrhage | 1 [2.0] | | | | |
| Hyperplasia, Lymphoid | | | | 1 [3.0] | |
| NTEGUMENTARY SYSTEM | | | | | |
| Mammary Gland | (46) | (49) | (47) | (46) | |
| Dilatation | 13 [2.5] | 9 [2.7] | 14 [2.4] | 9 [2.3] | |
| Fibrosis | 1 [2.0] | | | | |
| Inflammation, Granulomatous, Focal | 1 [3.0] | | | | |
| Skin | (50) | (50) | (50) | (50) | |
| Cyst Epithelial Inclusion | 2 | 2 | • • | 1 | |
| Hyperkeratosis, Focal | | 2 [3.0] | | 2 [3.0] | |
| Inflammation, Focal | | 1 [3.0] | 1 [3.0] | | |
| Ulcer | | | | 1 [3.0] | |
| Epidermis, Hyperplasia, Focal | | 1 [3.0] | 2 [3.0] | 1 [3.0] | |
| Subcutaneous Tissue, Edema | | | - - | 1 [3.0] | |

MUSCULOSKELETAL SYSTEM

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: DOSED WATER

Species/Strain: RATS/F 344

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

CAS Number: 3252-43-5

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Date Report Reqsted: 06/09/2006

Time Report Reqsted: 12:50:37 First Dose M/F: 09/05/01 / 09/05/01

| FISCHER 344 RATS MALE | 0 MG/L | 50 MG/L | 100 MG/L | 200 MG/L | |
|---|----------|----------|--------------------|--------------------|--|
| one Fibrous Osteodystrophy | (50) | (50) | (50) | (50) | |
| -ibrous Osteodystropny Hyperostosis | | 1 [1.0] | | 1 [2.0] | |
| emur, Hyperostosis | | | 1 [2.0] | | |
| eletal Muscle Fibrosis | (1) | (3) | (1) 1 [2.0] | (1) | |
| /OUS SYSTEM | | | | | |
| ain | (50) | (50) | (50) | (50) | |
| Compression, Focal | 5 [3.0] | 8 [3.0] | 12 [2.9] | 9 [3.0] | |
| Hemorrhage Hemorrhage, Focal | 4 [3.3] | 2 [3.0] | 1 [4.0] 3 [2.0] | 2 [3.0] | |
| ripheral Nerve | (2) | (0) | (4) | (0) | |
| PIRATORY SYSTEM | | | | | |
| ng | (50) | (50) | (50) | (50) | |
| Congestion | 1 [3.0] | 1 [3.0] | 2 [2.0] | 1 [2.0] | |
| Hemorrhage nfiltration Cellular, Mixed Cell | | 2 [3.0] | 1 [2.0] | 1 [3.0] | |
| nflammation | 2 [1.0] | 2 [1.0] | | 2 [1.0] | |
| Metaplasia, Osseous, Focal | 1 [1.0] | | | | |
| Metaplasia, Squamous, Focal Alveolar Epithelium, Hyperplasia | 12 [1.9] | 10 [1 7] | 1 [2.0] 8 [1.8] | 6 [2.0] | |
| Alveolar Epitnellum, Hyperplasia Serosa, Fibrosis | 12 [1.9] | 10 [1.7] | 0 [1.0] | 6 [2.0] 1 [2.0] | |
| ose | (50) | (50) | (50) | (50) | |
| Foreign Body | | | 1 [1.0] | 0.10.63 | |
| nflammation Nasolacrimal Duct, Inflammation | 2 [1.5] | | 1 [1.0] | 2 [2.0] | |
| achea | (50) | (50) | (50) | (50) | |
| nflammation | (/ | (, | (/ | 1 [3.0] | |
| CIAL SENSES SYSTEM | | | | | |
| e Atrophy | (48) | (47) | (48) | (47) | |
| | 1 [3.0] | | 1 [3.0] | | |

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: DOSED WATER

Species/Strain: RATS/F 344

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

CAS Number: 3252-43-5

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Date Report Reqsted: 06/09/2006

Time Report Reqsted: 12:50:37 First Dose M/F: 09/05/01 / 09/05/01

| FISCHER 344 RATS MALE | 0 MG/L | 50 MG/L | 100 MG/L | 200 MG/L | |
|--|----------|----------|-----------------|----------|--|
| Edema | | | 1 [3.0] | | |
| Retina, Degeneration Harderian Gland | (50) | (50) | 1 [3.0] (50) | (50) | |
| Hyperplasia, Lymphoid, Focal | 1 [1.0] | (00) | (00) | (66) | |
| Inflammation | | 1 [2.0] | | | |
| Epithelium, Hyperplasia, Focal | 3 [1.3] | 3 [1.3] | 1 [1.0] | 6 [1.8] | |
| Zymbal's Gland | (0) | (0) | (2) | (0) | |
| RINARY SYSTEM | | | | | |
| Kidney | (49) | (50) | (50) | (50) | |
| Infarct | 2 [3.5] | 1 [2.0] | 2 [2.0] | , | |
| Mineralization | | | 1 [1.0] | | |
| Nephropathy | 48 [1.8] | 47 [1.7] | 45 [1.6] | 45 [1.5] | |
| Renal Tubule, Accumulation, Hyaline Droplet | 1 [2.0] | 7 [2.3] | 1 [1.0] | 1 [3.0] | |
| Renal Tubule, Cyst | 2 | | | 1 | |
| Renal Tubule, Pigmentation | 2 [3.0] | 2 [3.0] | | 2 [3.0] | |
| Urethra | (0) | (1) | (1) | (0) | |
| Urinary Bladder | (50) | (50) | (49) | (50) | |
| Hemorrhage | 1 [3.0] | | 1 [3.0] | | |

^{***} END OF MALE ***

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: DOSED WATER

Species/Strain: RATS/F 344

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

CAS Number: 3252-43-5

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Date Report Reqsted: 06/09/2006

Time Report Reqsted: 12:50:37 First Dose M/F: 09/05/01 / 09/05/01

| FISCHER 344 RATS FEMALE | 0 MG/L | 50 MG/L | 100 MG/L | 200 MG/L |
|--|----------|----------|----------|----------|
| Disposition Summary | | | | |
| Animals Initially in Study | 50 | 50 | 50 | 50 |
| Early Deaths | | | | |
| Moribund Sacrifice | 9 | 11 | 16 | 12 |
| Natural Death | 12 | 4 | 5 | 7 |
| Survivors | | | | |
| Terminal Sacrifice | 29 | 35 | 29 | 31 |
| Animals Examined Microscopically | 50 | 50 | 50 | 50 |
| ALIMENTARY SYSTEM | | | | |
| Esophagus | (49) | (50) | (50) | (50) |
| Ulcer | , , | , | , | 1 [1.0] |
| Epithelium, Hyperkeratosis | 10 [1.7] | 8 [1.9] | 28 [2.0] | 48 [2.0] |
| Intestine Large, Cecum | (46) | (50) | (47) | (50) |
| Intestine Large, Colon | (48) | (50) | (49) | (50) |
| Intestine Large, Rectum | (49) | (49) | (48) | (49) |
| Intestine Small, Duodenum | (49) | (50) | (50) | (49) |
| Intestine Small, Ileum | (45) | (48) | (49) | (49) |
| Intestine Small, Jejunum | (42) | (48) | (48) | (46) |
| Liver | (50) | (50) | (50) | (50) |
| Angiectasis, Focal | 2 [1.5] | 1 [2.0] | 1 [1.0] | 3 [2.0] |
| Congestion | 3 [2.0] | 5 [2.0] | 4 [2.8] | 6 [2.3] |
| Degeneration, Cystic, Focal | 1 [2.0] | | 1 [2.0] | |
| Hematopoietic Cell Proliferation | | | 3 [1.0] | 1 [1.0] |
| Hepatodiaphragmatic Nodule | 7 | 5 | 6 | 3 |
| Infiltration Cellular, Lymphocyte | | | 1 [2.0] | |
| Inflammation, Chronic | 35 [1.6] | 41 [1.6] | 30 [1.4] | 34 [1.4] |
| Thrombosis | 1 [2.0] | | | |
| Bile Duct, Hyperplasia | 29 [1.7] | 29 [1.6] | 32 [1.6] | 29 [1.6] |
| Hepatocyte, Basophilic Focus | 39 | 47 | 41 | 41 |
| Hepatocyte, Clear Cell Focus | 11 | 15 | 14 | 14 |
| Hepatocyte, Cytologic Alterations, Focal | 6 [2.8] | 10 [2.1] | 16 [2.5] | 16 [2.4] |
| Hepatocyte, Eosinophilic Focus | 2 | 3 | 6 | 1 |
| Hepatocyte, Mixed Cell Focus | 14 | 25 | 15 | 25 |
| Hepatocyte, Necrosis | 2 [2.5] | 1 [1.0] | 6 [1.5] | 3 [1.0] |
| Hepatocyte, Syncytial Alteration, Focal | 1 [1.0] | | | |

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: DOSED WATER

Species/Strain: RATS/F 344

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

CAS Number: 3252-43-5

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Date Report Reqsted: 06/09/2006

Time Report Reqsted: 12:50:37 First Dose M/F: 09/05/01 / 09/05/01

| FISCHER 344 RATS FEMALE | 0 MG/L | 50 MG/L | 100 MG/L | 200 MG/L | |
|---------------------------------------|----------|----------|----------|----------|--|
| Hepatocyte, Vacuolization Cytoplasmic | 22 [2.1] | 27 [1.5] | 29 [2.0] | 23 [1.7] | |
| Mesentery | (20) | (11) | (17) | (15) | |
| Accessory Spleen | , | `1 ′ | , | `1 ´ | |
| Fat, Necrosis, Focal | 14 [2.9] | 8 [2.9] | 10 [2.9] | 11 [2.7] | |
| Oral Mucosa | (0) | (0) | (1) | (1) | |
| Hyperplasia | , | . , | , | 1 [3.0] | |
| Pancreas | (50) | (50) | (50) | (50) | |
| Acinus, Atrophy, Focal | 12 [1.9] | 20 [1.5] | 19 [1.8] | 17 [1.9] | |
| Acinus, Atrophy, Diffuse | | 1 [3.0] | | | |
| Acinus, Cytoplasmic Alteration | | | | 1 [2.0] | |
| Acinus, Hyperplasia | 1 [3.0] | | | | |
| Acinus, Hyperplasia, Focal | 1 [2.0] | | | | |
| Duct, Cyst | 8 | 13 | 7 | 4 | |
| Salivary Glands | (50) | (50) | (50) | (50) | |
| Atrophy, Focal | 1 [1.0] | () | , | , | |
| Stomach, Forestomach | (50) | (50) | (50) | (50) | |
| Erosion | , , | , , | 1 [2.0] | 1 [1.0] | |
| Inflammation | | 1 [2.0] | 1 [3.0] | | |
| Ulcer | 5 [1.6] | | 1 [3.0] | 2 [2.0] | |
| Epithelium, Hyperplasia | 4 [2.3] | 4 [1.5] | 8 [1.9] | 4 [2.5] | |
| Stomach, Glandular | (49) | (50) | (50) | (50) | |
| Erosion | 4 [1.5] | () | 4 [2.5] | 1 [2.0] | |
| Inflammation, Focal | 1 | | , | 1 [2.0] | |
| Mineralization | | 1 [3.0] | | 1 -1 | |
| Ulcer | | 11 | 2 [2.0] | 1 [2.0] | |
| Epithelium, Hyperplasia | 1 [2.0] | | , | 1 -1 | |
| Glands, Ectasia | 10 [1.0] | 4 [1.0] | 10 [1.0] | 26 [1.1] | |
| Glands, Hyperplasia | - 1 | | | 2 [1.5] | |
| Neuroendocrine Cell, Hyperplasia | | | | 1 [1.0] | |
| Tongue | (2) | (1) | (5) | (7) | |
| Epithelium, Hyperplasia | 1 [1.0] | 1 [1.0] | 2 [1.5] | 6 [1.2] | |
| Tooth | (1) | (0) | (0) | (0) | |
| Peridontal Tissue, Inflammation | 1 [3.0] | (-) | (-) | (-) | |
| ARDIOVASCULAR SYSTEM | | | | | |
| Heart | (50) | (50) | (50) | (50) | |
| Cardiomyopathy | 34 [1.7] | 36 [1.6] | 36 [1.4] | 35 [1.6] | |
| Thrombosis | 3 [2.3] | | 2 [3.0] | 1 [2.0] | |

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: DOSED WATER

Species/Strain: RATS/F 344

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

CAS Number: 3252-43-5

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Date Report Regsted: 06/09/2006

Time Report Reqsted: 12:50:37 First Dose M/F: 09/05/01 / 09/05/01

| Endocardium, Hyperplasia 1 [2.0] ENDOCRINE SYSTEM Adrenal Cortex (50) (50) (50) (50) Accessory Adrenal Cortical Nodule 6 [1.3] 1 [1.0] 1 [2.0] 2 [1.0] Anglectasis 5 [2.6] 1 [3.0] 3 [2.3] 1 [3.0] Cytoplasmic Alteration, Focal 2 [2.0] 4 [2.0] 1 [2.0] Hyperplasia, Focal 1 [4.0] 1 [1.0] 2 [1.5] Hyperplasia, Focal 2 [1.5] 9 [2.0] 10 [1.9] 8 [2.0] Infiltration Cellular, Mixed Cell Necrosis 1 [1.0] Vacuolization Cytoplasmic 4 [1.0] 1 [1.0] 1 [2.0] Adrenal Medulla (49) (50) (50) (50) Anglectasis 9 [1.0] 1 [2.0] Hyperplasia, Focal 1 [2.0] 1 [2.0] Hyperplasia, Focal 1 [2.0] 1 [2.0] Hyperplasia, Focal 1 [2.0] 1 [2.0] Futura Cellular, Mixed Cell 1 [2.0] Vacuolization Cytoplasmic, Focal 1 [2.0] Hyperplasia 1 [2.0] 1 [2.0] Futura Gland (42) (43) (43) (43) Alrophy 1 [2.0] Plutinary Gland (49) (48) (50) (50) Anglectasis 1 [2.0] Hyperplasia 1 [2.0] Hyperplasia 1 [2.0] Hyperplasia 1 [2.0] Futura Gland (49) (48) (50) (50) Futura Gland (49) (48) (50) (50) Futura Gland (49) (48) (50) (50) Anglectasis 6 [2.8] 3 [3.0] 5 [3.0] 7 [3.0] Cyst 5 3 2 4 (3.0) Hemorrhage 6 [2.5] 4 [3.3] 2 [2.0] Hyperplasia, Focal 1 [4.0] Hemorrhage 6 [2.5] 4 [3.3] 2 [2.0] Hyperplasia, Focal 1 [4.0] Focal Pars Distalis, Cytoplasmic Alteration, 1 [1.0] 2 [2.0] Pars Distalis, Cytoplasmic Alteration, 1 [1.0] 2 [2.0] Pars Intermedia, Hyperplasia, Focal 1 [2.0] Pars Intermedia, Focal 1 [2.0] | FISCHER 344 RATS FEMALE | 0 MG/L | 50 MG/L | 100 MG/L | 200 MG/L | |
|--|---|---------|------------|----------|----------|--|
| Adrenal Cortex (50) (50) (50) (50) (50) Accessory Adrenal Cortical Nodule Angiectasis 5 [2.6] 1 [3.0] 2 [3.3] 1 [3.0] Cytoplasmic Alteration, Focal 2 [2.0] 4 [2.0] 1 | Endocardium, Hyperplasia | | 1 [2.0] | | | |
| Accessory Adrenal Cortical Nodule 6 [1.3] 1 [1.0] 1 [2.0] 2 [1.0] Anglectasis 5 [2.6] 1 [3.0] 3 [2.3] 1 [3.0] 2 [2.0] 4 [2.0] 1 [2.0] 4 [2.0] | NDOCRINE SYSTEM | | | | | |
| Accessory Adrenal Cortical Nodule 6 [1.3] 1 [1.0] 1 [2.0] 2 [1.0] Angiectasis 5 [2.6] 1 [3.0] 3 [2.3] 1 [3.0] 2 [2.0] 4 [2.0] 1 [3.0] 3 [2.3] 1 [3.0] 5 [2.6] 1 [3.0] 3 [2.3] 1 [3.0] 5 [2.0] 1 [2.0] 5 [2.0] 1 [2.0] 5 [2.0] 1 [2.0] 5 [2.0] 1 [2.0] 5 [2.0] 1 [2.0] 5 [2.0] | Adrenal Cortex | (50) | (50) | (50) | (50) | |
| Cytoplasmic Alteration, Focal 2 [2.0] | Accessory Adrenal Cortical Nodule | 6 [1.3] | 1 [1.0] | | | |
| Cytoplasmic Alteration, Focal 2 [2.0] 4 [2.0] 1 [2.0] Hyperplasia 1 [4.0] 1 [4 | Angiectasis | 5 [2.6] | 1 [3.0] | 3 [2.3] | 1 [3.0] | |
| Hyperplasia 1 [4,0] | | | | | | |
| Hyperplasia, Focal 2 [1.5] 9 [2.0] 10 [1.9] 8 [2.0] 1 [1.0] 2 [1.5] Necrosis 1 [3.0] 1 [| | | | | | |
| Infiltration Cellular, Mixed Cell Necrosis Necro | Hyperplasia, Focal | | 9 [2.0] | 10 [1.9] | 8 [2.0] | |
| Necrosis 1 3.0 | Infiltration Cellular, Mixed Cell | | | | | |
| Pigmentation | | | | | | |
| Vacuolization Cytoplasmic 9 [1.9] 8 [1.8] 9 [1.8] 6 [1.5] Adrenal Medulla (49) (50) (50) (50) Angiectasis 1 [2.0] 1 [2.0] 1 [2.0] Hyperplasia, Focal 2 [1.5] 2 [1.5] 1 [2.0] Infiltration Cellular, Mixed Cell 1 [2.0] 1 [2.0] Vacuolization Cytoplasmic, Focal (50) (50) (50) Islets, Pancreatic (50) (50) (50) (49) Hyperplasia 1 [2.0] 1 [2.0] (49) (42) (43) (43) Parathyroid Gland (42) (42) (42) (43) (43) (43) Aryophy 1 [2.0] 1 [2.0] 1 [2.0] (50) (50) (50) Pituitary Gland (49) (48) (50) (50) (50) Angiectasis 6 [2.8] 3 [3.0] 5 [3.0] 7 [3.0] Cyst 5 3 2 4 4 1 [3.0] 1 [3.0] 1 [3.0] 1 [3.0] <td></td> <td>1 [3.0]</td> <td></td> <td></td> <td></td> <td></td> | | 1 [3.0] | | | | |
| Adrenal Medulla (49) (50) (50) (50) (50) Angiectasis 1[2.0] Hyperplasia, Focal 2 [1.5] 2 [1.5] 1 [2.0] Vacuolization Cytoplasmic, Focal 1[2.0] Hyperplasia (50) (50) (50) (50) (49) Hyperplasia 1[2.0] Parathyroid Gland (42) (42) (43) (43) Atrophy 1[2.0] Hyperplasia 1[2.0] Pituitary Gland (49) (48) (50) (50) (50) Angiectasis 6[2.8] 3 [3.0] 5 [3.0] 7 [3.0] Cyst 5 3 2 4 Fibrosis, Focal 1[4.0] Hemorrhage 6[2.5] 4 [3.3] 2 [2.0] Hyperplasial, Histiocytic, Focal 1[4.0] Pars Distalis, Cyst 4 6 5 12 Pars Distalis, Cyst 4 9 6 5 12 Pars Distalis, Cyst 4 9 6 5 12 Pars Distalis, Cyst 9 1 [1.0] 2 [2.0] Pars Distalis, Cyst 9 1 [2.0] Pars Distalis, Hyperplasia 1 [1.0] 2 [2.0] Pars Distalis, Hyperplasia, Focal 8 [2.3] 7 [2.4] 9 [2.4] 10 [2.2] Pars Intermedia, Hyperplasia, Focal 1 [2.0] Pars Intermedia, Hyperplasia, Focal 1 [2.0] Pars Intermedia, Vacuolization 1 [2.0] Cytoplasmic, Focal | | | 8 [1.8] | 9 [1.8] | 6 [1.5] | |
| Angiectasis Hyperplasia, Focal Hyperplasia, Focal Infiltration Cellular, Mixed Cell Vacuolization Cytoplasmic, Focal Islets, Pancreatic Hyperplasia Hyperplasia Hyperplasia Higher Hyper | | | | | | |
| Hyperplasia, Focal 2 [1.5] 2 [1.5] 1 [2.0] 5 [1.2] 1 [2.0] 1 [| | , | \ / | | , | |
| Infiltration Cellular, Mixed Cell Vacuolization Cytoplasmic, Focal Islets, Pancreatic (50) (50) (50) (50) (50) (50) (49) Hyperplasia (42) (42) (42) (43) (43) Atrophy 1 [2.0] Parathyroid Gland (42) (42) (42) (43) (43) Atrophy 1 [2.0] Pituitary Gland (49) (49) (48) (50) (50) Angiectasis (6 [2.8] 3 [3.0] 5 [3.0] 7 [3.0] Cyst 5 3 2 4 Fibrosis, Focal Hemorrhage 6 [2.5] 4 [3.3] Hemorrhage Hyperplasia, Histiocytic, Focal Pars Distalis, Cyst Pars Distalis, Cyst Pars Distalis, Cyst Pars Distalis, Hyperplasia Pars Distalis, Hyperplasia Pars Distalis, Hyperplasia Pars Distalis, Hyperplasia Pars Distalis, Hyperplasia, Focal Pars Intermedia, Hyperplasia, Focal Pars Intermedia, Vacuolization Cytoplasmic, Focal | | 2 [1.5] | 2 [1.5] | 1 [2.0] | 5 [1.2] | |
| Vacuolization Cytoplasmic, Focal Islets, Pancreatic (50) (50) (50) (50) (49) Hyperplasia Parathyroid Gland Atrophy 1 [2.0] Pitultary Gland (49) (48) (50) (50) Angiectasis Cyst Fibrosis, Focal Hemorrhage Hemorrhage Hemorrhage Hemorrhage Hars Distalis, Cyst Pars Distalis, Cytoplasmic Alteration, Focal Pars Distalis, Hyperplasia Pars Distalis, Hyperplasia Pars Distalis, Hyperplasia Pars Intermedia, Hyperplasia, Focal Pars Intermedia, Vacuolization Cytoplasmic, Focal Pars Intermedia, Vacuolization Cytoplasmic, Focal | | | | | | |
| Islets, Pancreatic (50) (50) (50) (50) (50) (49) Hyperplasia 1 (2.0] 1 (2.0] Parathyroid Gland (42) (42) (43) (43) Atrophy 1 (2.0] Hyperplasia 1 (2.0] Hyperplasia 1 (2.0] Pituitary Gland (49) (48) (50) (50) Angiectasis 6 (2.8] 3 (3.0] 5 (3.0] 7 (3.0] Cyst 5 3 2 4 Fibrosis, Focal 1 (3.0] Hemorrhage 6 (2.5] 4 (3.3] 2 (2.0] Hyperplasia, Histiocytic, Focal 1 (4.0] Pars Distalis, Cyst 4 6 5 12 Pars Distalis, Cytoplasmic Alteration, 1 (1.0] 2 (2.0] Pars Distalis, Hyperplasia 2 (3.0] Pars Distalis, Hyperplasia, Focal 8 (2.3] 7 (2.4] 9 (2.4] Pars Intermedia, Hyperplasia, Focal 1 (2.0) Pars Intermedia, Hyperplasia, Focal 1 (2.0) Pars Intermedia, Vacuolization 1 (2.0) Cytoplasmic, Focal (42) | | | | 1 [2.0] | | |
| Hyperplasia | | (50) | (50) | (50) | (49) | |
| Parathyroid Gland (42) (42) (43) (43) Atrophy 1 [2.0] (42) (43) (43) Hyperplasia 1 [2.0] (48) (50) (50) Pituitary Gland (49) (48) (50) (50) Angiectasis 6 [2.8] 3 [3.0] 5 [3.0] 7 [3.0] Cyst 5 3 2 4 Fibrosis, Focal 1 [3.0] 1 [3.0] 1 [3.0] Hemorrhage 6 [2.5] 4 [3.3] 2 [2.0] Hyperplasia, Histiocytic, Focal 1 [4.0] 1 [4.0] 1 [4.0] Pars Distalis, Cyst 4 6 5 12 Pars Distalis, Cytoplasmic Alteration, Focal 1 [1.0] 2 [2.0] 2 [1.5] Pars Distalis, Hyperplasia, Focal 8 [2.3] 7 [2.4] 9 [2.4] 10 [2.2] Pars Intermedia, Hyperplasia, Focal 1 [2.0] 1 [2.0] 1 [2.0] Cytoplasmic, Focal 1 [2.0] 1 [2.0] 1 [2.0] | | , | | | , | |
| Atrophy | | (42) | | | (43) | |
| Hyperplasia | | | \ / | , | , | |
| Pituitary Gland (49) (48) (50) (50) Angiectasis 6 [2.8] 3 [3.0] 5 [3.0] 7 [3.0] Cyst 5 3 2 4 Fibrosis, Focal 1 [3.0] 1 [3.0] Hemorrhage 6 [2.5] 4 [3.3] 2 [2.0] Hyperplasia, Histiocytic, Focal 1 [4.0] 2 [2.0] 2 [2.0] Pars Distalis, Cyst 4 6 5 12 Pars Distalis, Cytoplasmic Alteration, Focal 1 [1.0] 2 [2.0] 2 [1.5] Focal 2 [3.0] 2 [3.0] Pars Distalis, Hyperplasia, Focal 8 [2.3] 7 [2.4] 9 [2.4] 10 [2.2] Pars Intermedia, Hyperplasia, Focal 1 [2.0] 1 [2.0] 1 [2.0] Pars Intermedia, Vacuolization 1 [2.0] 1 [2.0] 1 [2.0] | | | | | | |
| Angiectasis 6 [2.8] 3 [3.0] 5 [3.0] 7 [3.0] Cyst 5 3 2 4 Fibrosis, Focal 1 [3.0] Hemorrhage 6 [2.5] 4 [3.3] 2 [2.0] Hyperplasia, Histiocytic, Focal 1 [4.0] Pars Distalis, Cyst 4 6 5 12 Pars Distalis, Cytoplasmic Alteration, 1 [1.0] 2 [2.0] Pars Distalis, Hyperplasia Pars Distalis, Hyperplasia Pars Distalis, Hyperplasia, Focal 8 [2.3] 7 [2.4] 9 [2.4] 10 [2.2] Pars Intermedia, Hyperplasia, Focal 1 [2.0] Pars Intermedia, Vacuolization Cytoplasmic, Focal | | | (48) | (50) | (50) | |
| Cyst 5 3 2 4 Fibrosis, Focal 1 [3.0] 1 [3.0] Hemorrhage 6 [2.5] 4 [3.3] 2 [2.0] Hyperplasia, Histiocytic, Focal 1 [4.0] 2 [2.0] Pars Distalis, Cyst 4 6 5 12 Pars Distalis, Cytoplasmic Alteration, Focal 1 [1.0] 2 [2.0] 2 [1.5] Focal 7 2 [3.0] 2 [3.0] Pars Distalis, Hyperplasia, Focal 8 [2.3] 7 [2.4] 9 [2.4] 10 [2.2] Pars Intermedia, Hyperplasia, Focal 1 [2.0] 1 [2.0] 1 [2.0] Pars Intermedia, Vacuolization 1 [2.0] 1 [2.0] 1 [2.0] | | | | | | |
| Fibrosis, Focal 1 [3.0] Hemorrhage 6 [2.5] 4 [3.3] 2 [2.0] Hyperplasia, Histiocytic, Focal 1 [4.0] 1 [4.0] Pars Distalis, Cyst 4 6 5 12 Pars Distalis, Cytoplasmic Alteration, Focal 1 [1.0] 2 [2.0] 2 [1.5] Focal 2 [3.0] 2 [3.0] Pars Distalis, Hyperplasia, Focal 8 [2.3] 7 [2.4] 9 [2.4] 10 [2.2] Pars Intermedia, Hyperplasia, Focal 1 [2.0] 1 [2.0] 1 [2.0] Cytoplasmic, Focal 1 [2.0] 1 [2.0] 1 [2.0] 1 [2.0] | | | | | | |
| Hemorrhage 6 [2.5] 4 [3.3] 2 [2.0] Hyperplasia, Histiocytic, Focal 1 [4.0] 1 [4.0] Pars Distalis, Cyst 4 6 5 12 Pars Distalis, Cytoplasmic Alteration, Focal 1 [1.0] 2 [2.0] 2 [1.5] Focal 2 [3.0] 2 [3.0] Pars Distalis, Hyperplasia 2 [3.0] 9 [2.4] 10 [2.2] Pars Intermedia, Hyperplasia, Focal Pars Intermedia, Vacuolization 1 [2.0] 1 [2.0] Cytoplasmic, Focal 1 [2.0] 1 [2.0] | | | | | 1 [3.0] | |
| Hyperplasia, Histiocytic, Focal Pars Distalis, Cyst Pars Distalis, Cytoplasmic Alteration, Focal Pars Distalis, Hyperplasia Pars Distalis, Hyperplasia Pars Distalis, Hyperplasia Pars Distalis, Hyperplasia, Focal Pars Intermedia, Hyperplasia, Focal Pars Intermedia, Vacuolization Cytoplasmic, Focal 1 [4.0] 4 6 5 12 2 [1.5] 2 [3.0] 9 [2.4] 9 [2.4] 10 [2.2] 11 [2.0] | | 6 [2.5] | 4 [3.3] | | | |
| Pars Distalis, Cyst 4 6 5 12 Pars Distalis, Cytoplasmic Alteration, 1 [1.0] 2 [2.0] 2 [1.5] Focal Pars Distalis, Hyperplasia Pars Distalis, Hyperplasia Pars Distalis, Hyperplasia, Focal 8 [2.3] 7 [2.4] 9 [2.4] 10 [2.2] Pars Intermedia, Hyperplasia, Focal 1 [2.0] Pars Intermedia, Vacuolization 1 [2.0] Cytoplasmic, Focal | | | r1 | | r - 1 | |
| Pars Distalis, Cytoplasmic Alteration, 1 [1.0] 2 [2.0] 2 [1.5] Focal Pars Distalis, Hyperplasia Pars Distalis, Hyperplasia, Focal 8 [2.3] 7 [2.4] 9 [2.4] 10 [2.2] Pars Intermedia, Hyperplasia, Focal 1 [2.0] Pars Intermedia, Vacuolization 1 [2.0] Cytoplasmic, Focal | | | 6 | 5 | 12 | |
| Pars Distalis, Hyperplasia, Focal 8 [2.3] 7 [2.4] 9 [2.4] 10 [2.2] Pars Intermedia, Hyperplasia, Focal 1 [2.0] Pars Intermedia, Vacuolization 1 [2.0] Cytoplasmic, Focal | Pars Distalis, Cytoplasmic Alteration, Focal | 1 [1.0] | | - | | |
| Pars Distalis, Hyperplasia, Focal 8 [2.3] 7 [2.4] 9 [2.4] 10 [2.2] Pars Intermedia, Hyperplasia, Focal 1 [2.0] Pars Intermedia, Vacuolization 1 [2.0] Cytoplasmic, Focal | Pars Distalis, Hyperplasia | | | | 2 [3.0] | |
| Pars Intermedia, Hyperplasia, Focal 1 [2.0] Pars Intermedia, Vacuolization 1 [2.0] Cytoplasmic, Focal | | 8 [2.3] | 7 [2.4] | 9 [2.4] | | |
| Pars Intermedia, Vacuolization 1 [2.0] Cytoplasmic, Focal | | | | | | |
| | Pars Intermedia, Vacuolization | | | 1 [2.0] | | |
| | Rathke's Cleft, Cyst | 1 | | 1 | 1 | |

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: DOSED WATER

Species/Strain: RATS/F 344

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

CAS Number: 3252-43-5

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Date Report Regsted: 06/09/2006

Time Report Reqsted: 12:50:37 First Dose M/F: 09/05/01 / 09/05/01

| FISCHER 344 RATS FEMALE | 0 MG/L | 50 MG/L | 100 MG/L | 200 MG/L | |
|---|--------------------|----------------------------|--------------------|--------------------|--|
| Thyroid Gland C-cell, Hyperplasia | (46) 38 [1.8] | (48) 44 [1.8] | (48) 45 [1.8] | (46) 42 [2.0] | |
| GENERAL BODY SYSTEM | | | | | |
| None | | | | | |
| GENITAL SYSTEM | | | | | |
| Clitoral Gland Cyst | (50) | (50) | (47) | (50) 1 | |
| Degeneration, Cystic Hyperplasia | 2 [2.0] | 2 [2.5] 1 [2.0] | 4 [2.5] | 6 [3.2] | |
| Hyperplasia, Cystic Inflammation | 4 [2.8] 7 [2.6] | 3 [2.0] 2 [2.5] | 8 [2.0] 1 [3.0] | 4 [2.3] 3 [2.7] | |
| Metaplasia, Squamous Ovary | (50) | (50) | 1 [3.0] (50) | (50) | |
| Angiectasis Cyst | 1 [2.0] 3 | 4 | 3 | 6 | |
| Oviduct Uterus | (1) (50) | (0) (50) | (1) (50) | (0) | |
| Decidual Reaction | , , | 1 [3.0] | (50) | (50) | |
| Hemorrhage Cervix, Hypertrophy | 1 [4.0] 1 [3.0] | 2 [3.0] | | 1 [3.0] | |
| Endometrium, Hyperplasia, Cystic Vagina | 32 [2.1] (6) | 38 [1.8] (2) | 39 [1.7] (7) | 32 [1.7] (7) | |
| Inflammation Inflammation, Suppurative | 1 [2.0] | 1 [2.0] | 1 [2.0] | 2 [3.0] | |
| Epithelium, Cyst | | | 1 | 1 | |
| HEMATOPOIETIC SYSTEM | | | | | |
| Bone Marrow Hyperplasia | (49) 3 [3.0] | (50) 1 [2.0] | (50) 5 [3.0] | (50) 2 [3.0] | |
| Hyperplasia, Histiocytic, Focal Hyperplasia, Reticulum Cell, Diffuse | 1 [3.0] | 1 [3.0] 1 [3.0] | 0 [0.0] | 1 [2.0] | |
| Inflammation, Granulomatous Lymph Node | (21) | 1 [2.0] 1 [2.0] (15) | (23) | (15) | |
| шуттртт чо ше | (21) | (10) | (23) | (13) | |

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: DOSED WATER

Species/Strain: RATS/F 344

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

CAS Number: 3252-43-5

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Date Report Reqsted: 06/09/2006

Time Report Reqsted: 12:50:37 First Dose M/F: 09/05/01 / 09/05/01

| Congestion | | | | | | |
|--|----------------------------------|---------|---------|----------|----------|--|
| Deep Cervical, Hemorrhage | FISCHER 344 RATS FEMALE | 0 MG/L | 50 MG/L | 100 MG/L | 200 MG/L | |
| Deep Cervical, Hemorrhage | Congestion | | | 1 [3 0] | | |
| Mediastinal, Ectasia 1 [3.0] 4 [3.0] Mediastinal, Hemorrhage 7 [2.9] 6 [2.7] 6 [3.0] 3 [3.0] Mediastinal, Hyperplasia, Histocytic 1 [3.0] 4 [2.8] 2 [2.5] Mediastinal, Hyperplasia, Lymphoid 1 [3.0] 4 [2.8] 2 [2.5] Mediastinal, Pigmentation 1 [3.0] 1 [3.0] 1 [3.0] Pancreatic, Amyloid Deposition 1 [3.0] 2 [3.0] 2 [3.0] 2 [3.0] Pancreatic, Hemorrhage 3 [3.0] 2 [3.0] 2 [3.0] 2 [3.0] 2 [3.0] Pancreatic, Hindmandion, Granulomatous 1 [2.0] (2) | | 1 [3.0] | | 1 [3.0] | | |
| Mediastinal, Hemorrhage 7 [2-9] 6 [2.7] 6 [3.0] 3 [3.0] Mediastinal, Hyperplasia, Histocytic 1 [3.0] 2 [3.0] 4 [2.8] 2 [2.5] Mediastinal, Inflarmation 1 [1.0] 3 [3.0] 4 [2.8] 2 [2.5] Mediastinal, Pigmentation 1 [3.0] 1 [3.0] 1 [3.0] Pancreatic, Amyloid Deposition 1 [3.0] 2 [3.0] 2 [3.0] Pancreatic, Edasia 1 [3.0] 2 [3.0] 2 [3.0] Pancreatic, Inflammation, Granulomatous 1 [2.0] 2 [3.0] 2 [3.0] 2 [3.0] Lymph Node, Mandibular (30) (2) (2) (2) (2) Lymph Node, Mesenteric (50) (50) (50) (50) (50) Edasia 1 [3.0] 1 [2.0] 1 [3.0] 1 [3.0] 1 [3.0] Hyperplasia, Lymphoid 2 [3.0] 1 [2.0] 1 [3.0] 2 [3.0] 1 [3.0] Hyperplasia, Lymphoid 2 [3.0] 1 [2.0] 1 [3.0] 1 [3.0] 1 [3.0] Spleen (50) (50) (50) <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | | | | | | |
| Mediastinal, Hyperplasia, Lymphoid 1 [3.0] 2 [3.0] 4 [2.8] 2 [2.5] Mediastinal, Hyperplasia, Lymphoid 1 [3.0] 2 [3.0] 4 [2.8] 2 [2.5] Mediastinal, Pigmentation 1 [1.0] 1 [3.0] 1 [3.0] Pancreatic, Amyloid Deposition 1 [3.0] 2 [3.0] 2 [3.0] 2 [3.0] Pancreatic, Hordmander 3 [3.0] 2 [3.0] 2 [3.0] 2 [3.0] Pancreatic, Hifammation, Granulomatous 1 [2.0] (2) (2) (2) Lymph Node, Mandibular (3) (2) (2) (2) (2) Ectasia 1 [3.0] 2 [3.0] 1 [3.0] (50) | | | 6 [2.7] | | 3 [3.0] | |
| Mediastinal, Hyperplasia, Lymphoid 1 (3.0) 2 (3.0) 4 (2.8) 2 (2.5) Mediastinal, Highernation 1 (3.0) 1 (3.0) 1 (3.0) Pancreatic, Amyloid Deposition 1 (3.0) 1 (3.0) 1 (3.0) Pancreatic, Edasia 1 (3.0) 2 (3.0) 2 (3.0) 2 (3.0) Pancreatic, Inflammation, Granulomatous 1 (2.0) (2) (2) (2) Lymph Node, Mandibular (3) (2) (2) (2) Ectasia 1 (3.0) (50) (50) (50) Ectasia 1 (3.0) 2 (3.0) 1 (2.0) 1 (3.0) Hyphy Node, Mesenteric (50) (50) (50) (50) Ectasia 1 (3.0) 1 (2.0) 1 (2.0) 1 (3.0) Hyperplasia, Lymphoid 2 (3.0) 1 (2.0) 1 (2.0) 2 (3.0) 1 (3.0) Hyperplasia, Lymphoid 1 (2.0) 1 (2.0) 1 (3.0) 1 (3.0) 1 (3.0) Spleen (50) (50) (50) (50) (50) (50) Hyperplasia, Histicoytic, Focal 1 (3.0) 1 (3.0) 1 (3.0) 1 (3.0) <td></td> <td>. []</td> <td>- []</td> <td></td> <td>. []</td> <td></td> | | . [] | - [] | | . [] | |
| Mediastinal, Inflammation, Granulomatous 1 [1.0] Mediastinal, Pigmentation 1 [3.0] 1 [3.0] Pancreatic, Amyloid Deposition 1 [3.0] 2 [3.0] Pancreatic, Ectasia 1 [3.0] 2 [3.0] Pancreatic, Inflammation, Granulomatous 1 [2.0] 2 [3.0] Lymph Node, Mandibular (3) (2) (2) Ectasia 1 [3.0] 500 (50) Lymph Node, Mesenteric (50) (50) (50) (50) Ectasia 1 [3.0] 2 [3.0] 1 [3.0] 1 [3.0] Hemorrhage 1 [2.0] 1 [2.0] 2 [3.0] 1 [3.0] 2 [3.0] 1 [3.0] | | 1 [3.0] | 2 [3.0] | | 2 [2.5] | |
| Accordant | | | -[] | . [] | _ [] | |
| Mediastinal, Pigmentation 1 [3.0] 1 [3.0] Pancreatic, Amyloid Deposition 1 [3.0] 1 [3.0] Pancreatic, Ectasia 1 [3.0] 2 [3.0] 2 [3.0] Pancreatic, Inflammation, Granulomatous 1 [2.0] 2 [3.0] 2 [3.0] Lymph Node, Mandibular (3) (2) (2) (2) Ectasia 1 [3.0] 2 [3.0] 1 [3.0] Lymph Node, Mesenteric (50) (50) (50) (50) Ectasia 1 [3.0] 2 [3.0] 1 [3.0] Hymphold 2 [3.0] 1 [2.0] 2 [3.0] Hyperplasia, Lymphoid 2 [3.0] 1 [2.0] 2 [3.0] Pigmentation 1 [2.0] 1 [2.0] 2 [3.0] Pigmentation 4 [2.8] 2 [2.5] 4 [3.3] 5 [2.6] Hyperplasia, Histocytic, Focal inflammation, Granulomatous 1 [3.0] 1 [3.0] 1 [3.0] Pigmentation 6 [3.0] 1 [3.0] 1 [3.0] 1 [3.0] Lymphoid Follide, Atrophy 4 [48) 4 [49) 4 [49) 4 [49) | | 1 -1 | | | | |
| Pancreatic, Amyloid Deposition Pancreatic, Ectasia 1 (3.0) Pancreatic, Hemorrhage 3 (3.0) 2 (3.0) 2 (3.0) 2 (3.0) Pancreatic, Hiffammation, Granulomatous 1 (2.0) Lymph Node, Mandibular (3.0) (50) (50) (50) Ectasia 1 (3.0) Lymph Node, Mesenteric (50) (50) (50) (50) (50) Ectasia 1 (3.0) 2 (3.0) 1 (3.0) Hemorrhage 1 (2.0) Hyperplasia, Lymphoid 2 (3.0) 1 (2.0) Inflammation, Granulomatous 1 (2.0) Spleen (50) (50) (50) (50) (50) (50) Hematopoietic Cell Proliferation 4 (2.8) 2 (2.5) 4 (3.3) 5 (2.6) Hyperplasia, Histiocytic, Focal 2 (3.0) Inflammation, Granulomatous 1 (3.0) Inflammation (4.8) Inflammation (5.0) Inflamm | | | 1 [3.0] | | 1 [3.0] | |
| Pancreatic, Ectasia 1 3.0 Pancreatic, Hemorrhage 3 3.0 Pancreatic, Inflammation, Granulomatous 1 2.0 Lymph Node, Mandibular (3) (2) (2) (2) (2) Lymph Node, Mandibular (3) (2) (2) (2) (2) Ectasia 1 3.0 Lymph Node, Mesenteric (50) (50) (50) (50) (50) Hemorrhage 1 12.0 Hyperplasia, Lymphoid 2 3.0 1 2.0 Pigmentation 1 2.0 Pigmentation 4 2.8 2 2.5 4 3.3 5 2.6 Hyperplasia, Histiocytic, Focal 2 3.0 Inflammation, Granulomatous 1 3.0 Pigmentation 4 2.8 2 2.5 4 3.3 5 2.6 Hyperplasia, Histiocytic, Focal 2 3.0 Inflammation, Granulomatous 1 3.0 Pigmentation 6 3.0 Lymphoid Follicle, Atrophy Thymus (48) (49) (48) (49) Hemorrhage Hyperplasia, Lymphoid 2 3.0 Thymus (48) (49) (50) (50) (50) (50) INTEGUMENTARY SYSTEM Mammary Gland (49) (50) (50) (50) (50) (50) Pilorosis (20) (13.0 Pignoresia (49) (50) (50) (50) (50) (50) Pilorosis (20) (13.0 Pignoresia (49) (50) (50) (50) (50) (50) Pignoresia (49) (50) (50) (50) (50) Pignoresia (49) (50) (50) (50) (50) Pignoresia (49) (48) (49) Pignoresia (49) (48) (49) (48) (49) Pignoresia (49) (50) (50) (50) (50) (50) Pignoresia (49) (50) (50) (50) (50) (50) (50) (50) (50 | | | 11 | 1 [3.0] | [] | |
| Pancreatic, Hemorrhage 3 [3.0] 2 [3.0] 2 [3.0] 2 [3.0] 2 [3.0] 2 [3.0] Pancreatic, Inflammation, Granulomatous 1 [2.0] (2) (2) (2) (2) (2) (2) (2) (2) (2) (3.0] Pipm Node, Mandibular (3.0) (5. | | 1 [3.0] | | 1 | | |
| Pancreatic, Inflammation, Granulomatous Lymph Node, Mandibular Ectasia Lymph Node, Mesenteric (50) Lymph Node, Mesenteric (50) Ectasia 1 [3.0] Lymph Node, Mesenteric (50) Ectasia 1 [3.0] Hemorrhage Hyperplasia, Lymphoid 2 [3.0] 1 [2.0] High matter and the properties of the properti | | | 2 [3.0] | 2 [3.0] | 2 [3.0] | |
| Lymph Node, Mandibular Ectasia 1 [3.0] Lymph Node, Mesenteric (50) (50) (50) (50) (50) Ectasia 1 [3.0] Lymph Node, Mesenteric (50) (50) (50) (50) (50) Ectasia 1 [3.0] Hemorrhage 1 [2.0] Hyperplasia, Lymphoid 2 [3.0] 1 [2.0] Inflammation, Granulomatous 1 [2.0] Inflammation, Granulomatous 1 [2.0] Spleen (50) (50) (50) (50) (50) Hematopoietic Cell Proliferation 4 [2.8] 2 [2.5] 4 [3.3] 5 [2.6] Hyperplasia, Histiocytic, Focal 2 [3.0] Inflammation, Granulomatous 1 [3.0] 1 [3.0] Pigmentation 6 [3.0] Lymphoid Follicle, Atrophy Thymus (48) (49) (48) (49) Hemorrhage 1 [3.0] Hyperplasia, Lymphoid 2 [3.0] 1 [3.0] INTEGUMENTARY SYSTEM Mammary Gland (49) (50) (50) (50) (50) Dilatation 38 [2.9] 41 [2.7] 33 [2.8] 32 [2.9] Fibrosis 1 [3.0] Fibrosis 1 [3.0] 1 [3.0] | | 1 [2.0] | | | | |
| Ectasia | | | (2) | (2) | (2) | |
| Lymph Node, Mesenteric Ectasia 1 [3.0] (50) (50) (50) Ectasia 1 [3.0] 2 [3.0] 1 [3.0] Hemorrhage 1 [2.0] Hyperplasia, Lymphoid 2 [3.0] 1 [2.0] Inflammation, Granulomatous 1 [2.0] 1 [2.0] Pigmentation 1 [2.0] Spleen (50) (50) (50) (50) Hematopoietic Cell Proliferation 4 [2.8] 2 [2.5] 4 [3.3] 5 [2.6] Hyperplasia, Histiocytic, Focal 2 [3.0] Inflammation, Granulomatous 1 [3.0] 1 [3.0] Pigmentation 6 [3.0] 1 [3.0] Pigmentation 6 [3.0] 1 [3.0] Inflammation, Granulomatous 1 [3.0] 1 [3.0] Pigmentation 4 [2.8] 1 [3.0] Pigmentation 2 [3.0] 1 [3.0] Inflammation, Granulomatous 1 [3.0] 1 [3.0] Inflam | | | , | , | , , | |
| Ectasia 1 [3.0] 2 [3.0] 1 [3.0] | Lymph Node, Mesenteric | | (50) | (50) | (50) | |
| Hemorrhage | Ectasia | 1 [3.0] | , , | 2 [3.0] | 1 [3.0] | |
| Hyperplasia, Lymphoid 2 3.0 1 2.0 1 2.0 | Hemorrhage | | | 1 [2.0] | | |
| Inflammation, Granulomatous Pigmentation Pigmentation 1 [2.0] Pigmentation 1 [2.0] Spleen (50) Hematopoietic Cell Proliferation 4 [2.8] 4 [2.5] Hyperplasia, Histiocytic, Focal 1 [3.0] Inflammation, Granulomatous 1 [3.0] Pigmentation 6 [3.0] Lymphoid Follicle, Atrophy Thymus Hemorrhage Hyperplasia, Lymphoid 2 [3.0] 1 [3.0] INTEGUMENTARY SYSTEM Mammary Gland Mammary Gland Dilatation Fibrosis Galactocele 2 1 [2.0] 1 [2.0] 1 [2.0] 1 [2.0] 1 [2.0] 1 [3.0] 5 [2.6] 4 [3.3] 5 [2.6] 4 [3.3] 5 [2.6] 4 [3.3] 5 [2.6] 4 [3.0] 5 [2.6] 4 [3.0] 1 [3.0] I [3.0] 5 [2.6] 4 [3.0] 1 [3.0] | Hyperplasia, Lymphoid | 2 [3.0] | 1 [2.0] | | 2 [3.0] | |
| Pigmentation 1 [2.0] (50) (50 | Inflammation, Granulomatous | | 1 [2.0] | | | |
| Spleen (50) | Pigmentation | 1 [2.0] | | | | |
| Hyperplasia, Histiocytic, Focal 2 [3.0] Inflammation, Granulomatous 1 [3.0] 1 | | (50) | | | | |
| Hyperplasia, Histiocytic, Focal 2 [3.0] Inflammation, Granulomatous 1 [3.0] 1 | Hematopoietic Cell Proliferation | 4 [2.8] | 2 [2.5] | 4 [3.3] | 5 [2.6] | |
| Pigmentation 6 [3.0] 1 [3.0] Lymphoid Follicle, Atrophy 1 [3.0] Thymus (48) (49) (48) (49) Hemorrhage 1 [3.0] 1 [3.0] Hyperplasia, Lymphoid 2 [3.0] 1 [3.0] 1 [3.0] INTEGUMENTARY SYSTEM (49) (50) (50) (50) Dilatation 38 [2.9] 41 [2.7] 33 [2.8] 32 [2.9] Fibrosis 1 [3.0] 2 [3.0] 1 [3.0] Galactocele 2 1 1 | | 2 [3.0] | | | | |
| Lymphoid Follicle, Atrophy Thymus (48) (49) (48) (49) Hemorrhage Hyperplasia, Lymphoid 2 [3.0] 1 [3.0] INTEGUMENTARY SYSTEM Mammary Gland (49) (50) (50) (50) Dilatation 38 [2.9] 41 [2.7] 33 [2.8] 32 [2.9] Fibrosis 1 [3.0] Galactocele 2 | | | 1 [3.0] | | | |
| Thymus (48) (49) (48) (49) (49) (49) (49) (49) (49) (49) (49 | | 6 [3.0] | | | | |
| Hemorrhage Hyperplasia, Lymphoid 2 [3.0] 1 [3.0] INTEGUMENTARY SYSTEM Mammary Gland Dilatation Dilatation Fibrosis Galactocele (49) (50) (50) (50) (50) (50) (50) (50) (50 | | | | | 1 [3.0] | |
| Hyperplasia, Lymphoid 2 [3.0] 1 [3.0] INTEGUMENTARY SYSTEM Mammary Gland (49) (50) (50) (50) Dilatation 38 [2.9] 41 [2.7] 33 [2.8] 32 [2.9] Fibrosis 1 [3.0] 2 [3.0] 1 [3.0] Galactocele 2 | | (48) | (49) | (48) | | |
| Mammary Gland (49) (50) | | | | | 1 [3.0] | |
| Mammary Gland (49) (50) (50) (50) Dilatation 38 [2.9] 41 [2.7] 33 [2.8] 32 [2.9] Fibrosis 1 [3.0] 2 [3.0] 1 [3.0] Galactocele 2 1 | Hyperplasia, Lymphoid | 2 [3.0] | 1 [3.0] | | | |
| Dilatation 38 [2.9] 41 [2.7] 33 [2.8] 32 [2.9] Fibrosis 1 [3.0] 2 [3.0] 1 [3.0] Galactocele 2 1 | INTEGUMENTARY SYSTEM | | | | | |
| Dilatation 38 [2.9] 41 [2.7] 33 [2.8] 32 [2.9] Fibrosis 1 [3.0] 2 [3.0] 1 [3.0] Galactocele 2 1 | Mammary Gland | (49) | (50) | (50) | (50) | |
| Fibrosis 1 [3.0] 2 [3.0] 1 [3.0] Galactocele 2 1 | | | | | | |
| Galactocele 2 1 | | 1 | | | | |
| | | 2 | F1 | r1 | | |
| SKIN (50) (50) (50) (49) | Skin | (50) | (50) | (50) | (49) | |
| Cyst Epithelial Inclusion 1 | Cyst Epithelial Inclusion | , , | ` ' | `1 ′ | , , | |

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: DOSED WATER

Species/Strain: RATS/F 344

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

CAS Number: 3252-43-5

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Date Report Regsted: 06/09/2006

Time Report Reqsted: 12:50:37 First Dose M/F: 09/05/01 / 09/05/01

| FISCHER 344 RATS FEMALE | 0 MG/L | 50 MG/L | 100 MG/L | 200 MG/L | |
|---|---------------------|----------|----------|-----------------|--|
| Ulcer | 1 [3.0] | 1 [2.0] | | 1 [2.0] | |
| Subcutaneous Tissue, Fibrosis, Focal Subcutaneous Tissue, Necrosis, Fatty | 1 [2.0] | | 1 [3.0] | | |
| MUSCULOSKELETAL SYSTEM | | | | | |
| Bone Hyperostosis | (50) | (50) | (50) | (50) 1 [2.0] | |
| Cranium, Hyperostosis | | | 1 [2.0] | 1 [2.0] | |
| Skeletal Muscle | (3) | (0) | (0) | (0) | |
| NERVOUS SYSTEM | | | | | |
| Brain | (50) | (50) | (50) | (50) | |
| Compression, Focal | 12 [2.7] | 12 [2.8] | 19 [2.8] | 6 [2.5] | |
| Hemorrhage, Focal | 2 [2.5] | 1 [1.0] | 1 [1.0] | 2 [2.0] | |
| Spinal Cord | (5) | (3) | (2) | (4) | |
| Atrophy, Focal Hemorrhage, Focal | 1 [3.0] | | | 1 [3.0] | |
| RESPIRATORY SYSTEM | | | | | |
| Lung | (50) | (50) | (50) | (50) | |
| Congestion | 3 [2.0] | 1 [3.0] | 1 [2.0] | 2 [2.0] | |
| Hemorrhage | 1 [1.0] | | 1 [2.0] | 2 [2.5] | |
| Hyperplasia, Histiocytic, Focal | | 1 [2.0] | | | |
| Inflammation | 3 [1.7] | 1 [2.0] | 3 [1.3] | 7 [1.4] | |
| Metaplasia, Squamous, Focal Alveolar Epithelium, Hyperplasia | 1 [2.0] 10 [1.9] | 5 [1.2] | 2 [2.0] | 5 [2.0] | |
| Interstitium, Edema | 1 [2.0] | 5 [1.2] | 2 [2.0] | 3 [2.0] | |
| Nose | (50) | (50) | (50) | (50) | |
| Nasolacrimal Duct, Inflammation | | 1 [2.0] | | 1 [2.0] | |
| Trachea | (50) | (50) | (50) | (50) | |
| SPECIAL SENSES SYSTEM | | | | | |
| Eye | (47) | (50) | (50) | (48) | |
| Atrophy | , , | 2 [3.0] | 1 [3.0] | 3 [3.0] | |

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: DOSED WATER

Species/Strain: RATS/F 344

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

CAS Number: 3252-43-5

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Date Report Regsted: 06/09/2006

Time Report Reqsted: 12:50:37 First Dose M/F: 09/05/01 / 09/05/01

Lab: SRI

| FISCHER 344 RATS FEMALE | 0 MG/L | 50 MG/L | 100 MG/L | 200 MG/L | |
|---|---------------------|----------|----------|---------------------|--|
| Cataract | 3 [2.7] | 2 [3.0] | | | |
| Exudate | 1 [3.0] | 2 [0.0] | | | |
| Retina, Degeneration | 2 [3.0] | 2 [3.0] | | | |
| Harderian Gland | (50) | (50) | (50) | (50) | |
| Degeneration, Cystic, Focal | () | () | () | 1 [2.0] | |
| Hyperplasia, Lymphoid, Focal | 1 [2.0] | | | 1 -1 | |
| Inflammation | | | 1 [1.0] | | |
| Epithelium, Hyperplasia, Focal | 4 [1.3] | | 1 [1.0] | 1 [2.0] | |
| Zymbal's Gland | (0) | (0) | (1) | (0) | |
| IRINARY SYSTEM Kidney | (50) | (49) | (50) | (49) | |
| Congestion | | | | 1 [3.0] | |
| Infarct | 1 [1.0] | 1 [2.0] | | 4 [3.3] | |
| Infiltration Cellular, Lymphocyte | | 4 [0 0] | 1 [2.0] | | |
| Mineralization | 22 [4 4] | 1 [3.0] | 44 [4 2] | 42 [4 2] | |
| Nephropathy Pelvis, Inflammation, Chronic | 33 [1.1] | 36 [1.2] | 44 [1.3] | 43 [1.3] | |
| Renal Tubule, Accumulation, Hyaline | 1 [2.0] 11 [2.4] | 18 [2.0] | 17 [2.2] | 7 [2.0] 14 [1.9] | |
| Droplet | 11 [2.4] | 10 [2.0] | 17 [2.2] | 14 [1.3] | |
| Renal Tubule, Cyst | 1 | 1 | | 1 | |
| Renal Tubule, Hyperplasia, Focal | | | 1 [1.0] | | |
| Renal Tubule, Pigmentation | 1 [3.0] | | | | |
| Urinary Bladder | (50) | (50) | (49) | (50) | |

*** END OF REPORT ***

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)